

Mineral Industry Surveys

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LEAD IN NOVEMBER 1999

Domestic mine production, based upon the net quantity of lead recovered in the smelting of concentrate, decreased by 1% in October compared with production in September. Data on mine production in November were not available at the time of publication. Secondary refinery production decreased by 2% in November, and was down by about 4% compared with production in November 1998. Reported consumption was up by 3% in November compared with the previous month.

According to *Platt's Metals Week* published quotations, the average North American producer price and the average London Metal Exchange (LME) cash price (U.S. dollars) declined in November, decreasing by 0.14% and 3.38%, respectively.

In North America, the demand for lead remained strong during November, especially in the industrial battery sector. However, in the replacement automotive battery sector, producers reported some decline in shipments owing to the fairly mild temperatures in the early weeks of winter. Lead producers and battery manufacturers noted that without colder temperatures and increased battery failures lead demand would not be sustained at its current level (Ryan's Notes, 1999b).

The European lead market began to strengthen near the end of November. Industry observers reported that battery manufacturers were beginning to purchase lead to meet the increasing demand for batteries. However, in spite of the lead purchasing, a significant increase in consumer demand was believed to be necessary to reduce the increasing level of lead stocks in LME warehouses. The LME stocks had reached about 175,000 metric tons by the end of November, representing a 61% increase over the level at the beginning of 1999 (Platt's Metals Week, 1999b).

National Defense Stockpile cash disposal (sale) of lead in November was 3,840 metric tons (4,233 short tons). Sale of lead to date in fiscal year 2000 (October through November 1999) was 7,676 metric tons (8,461 short tons).

The U.S. Environmental Protection Agency (EPA) announced its solicitation of pre-application grant proposals for technical studies to minimize lead hazards to occupants engaged in home improvement, repainting, renovation, and remodeling projects. The

EPA anticipates that about \$700,000 will be available in fiscal year 2000, with individual grants/cooperative agreements awarded in the range of \$60,000 to \$100,000. Eligible recipients may include, but will not be limited to, non-profit organizations, institutions of higher learning, State and local associations, States, Federally recognized Indian Tribes and tribal organizations, for-profit organizations, trade and professional associations, labor unions, and joint labor/management trust funds. The applicant's proposed period of technical studies should be scheduled to begin on October 1, 2000, and to last for a duration of up to 2 years. Decisions on the awarding of the grant funds will be made based on the evaluation of the pre-application grant proposals, at which time the successful applicants will be requested to submit other documents to complete the application process (U.S. Environmental Protection Agency, 1999).

Canada's Cominco Ltd. reported that it expects to have acquired the necessary permits for mining at Cominco's Pend Oreille lead-zinc property in northeast Washington by early 2000, according to a company official. Should the permits be received as anticipated, production likely could begin at Pend Oreille sometime in the first half of 2002. The Pend Oreille property is located about 80 kilometers (50 miles) from Cominco's lead-zinc processing complex in Trail, British Columbia (Platt's Metals Week, 1999c).

Sanders Lead Co., Inc., Troy, AL, a major producer of secondary lead, is in the process of obtaining the required permits to add two smelting furnaces to its existing four-furnace facility. The additional furnaces would increase the plant production capacity to about 160,000 short tons per year from the current 120,000 short tons per year (Ryan's Notes, 1999a).

Exide Corp., Reading, PA, recently announced that it had reached an agreement with Wal-Mart Stores to test-market a new automotive battery at certain Wal-Mart locations. The first delivery of 12,000 of the cylindrically-wrapped-gel-technology batteries were to be made in November (ITE Battery News, 1999b). Exide also reported that it had reached an agreement with Tennessee-based Tractor Supply Co. to begin supplying as many as 275,000 batteries per year, beginning in January 2000. The

batteries supplied will include automotive-type brands as well as lawn and garden units (Platt's Metals Week, 1999a).

GNB Technologies, Inc., Atlanta, GA, recently introduced a new battery into the market. The battery is the first product resulting from GNB's joint technology agreement with Optima Batteries. The battery is based upon the original Optima "SpiralCell Technology." Shipments to a number of retail outlets were to begin in November (ITE Battery News, 1999a).

Australian miner Union Capital has signed a security of tenure agreement with state-owned General Iranian Mining Co. as an initial step in the potential development of the Mehdiabad zinc-lead-silver deposit in Iran. A prefeasibility study has been undertaken by an independent consultant to determine the processing and mining options at Mehdiabad. According to a Union Capital spokesperson, the company believes that it will be possible to develop the deposit as a large open-pit mine and to economically process the complex ore in an integrated processing facility. Pending the results of the full-feasibility study, the project is expected to be ready for development in about 2 years (Metal Bulletin, 1999).

Production of refined lead in Kazakhstan has been increasing, reaching nearly 43,000 tons in the third quarter of 1999, up 83% from the same quarter of 1998. Lead production for the first 9 months of the year totaled about 113,000 tons, a 66% increase compared with production in the same period of 1998. Kazakhstan accounted for an estimated 80% of the regional production of

refined lead in the first 3 quarters of 1999. Reportedly, the recent installation of new smelting furnaces at both the Ust-Kamenogorsk and Chimkent (renamed Yuzhpolimetall) smelters could further increase Kazakhstan's refined lead production (CRU International Ltd., 1999).

References Cited

- CRU International Ltd., 1999, Lead output rises further: CRU-CIS Metals Review, Fourth quarter, p. 8.
- ITE Battery News, 1999a, GNB Technologies launched the Champion Vortex: ITE Battery News, no. 6 (Nov.-Dec.), p. 20.
- 1999b, Wal-Mart stores and Exide Corporation announced that they have reached an agreement to test-market the Orbital Select automotive battery: ITE Battery News, no. 6 (Nov.-Dec.), p. 17.
- Metal Bulletin, 1999, Union Capital signs first foreign deal in Iran: Metal Bulletin, no. 8423, November 4, p. 9.
- Platt's Metals Week, 1999a, Exide in battery deal: Platt's Metals Week, v. 70, no. 46, November 15, p. 6.
- 1999b, LME lead perks up on signs of consumer interest: Platt's Metals Week, v. 70, no. 48, November 29, p. 6.
- 1999c, Pend Oreille permits early 2000: Platt's Metals Week, v. 70, no. 44, November 1, p. 6.
- Ryan's Notes, 1999a, Exide backtracks on legal problems: Ryan's Notes, v. 5, no. 46, November 15, p. 4.
- 1999b, Warning on lead: Ryan's Notes, v. 5, no. 48, November 29, p. 4.
- U.S. Environmental Protection Agency, 1999, Notice of availability of FY 2000 grant funds for technical studies: Federal Register, v. 64, no. 215, November 8, p. 60815-60819.

TABLE 1
SALIENT LEAD STATISTICS IN THE UNITED STATES 1/

(Metric tons)

	1998		1999		
	Year total	January - November	October	November	January - November
Production:					
Mine (recoverable)	481,000	409,000	41,200 r/	NA	432,000 2/
Primary refinery	337,000	NA	NA	NA	NA
Secondary refinery:					
Reported by smelters/refineries	1,100,000	989,000	91,300	89,300	959,000
Estimated	--	16,800	923	902	13,400
Recovered from copper-base scrap e/	16,800	13,800	1,250	1,250	13,800
Total secondary	1,120,000	1,020,000	93,500	91,400	986,000
Stocks, end of period:					
Primary refineries	10,900 3/	XX	NA	NA	XX
Secondary smelters and consumers	77,300 3/	XX	66,400	66,500	XX
Imports for consumption:					
Ore and concentrates (lead content)	32,700	21,200	--	NA	9,430 2/
Refined metal	267,000	240,000	40,600	NA	247,000 2/
Consumption:					
Reported	1,630,000	1,390,000 r/	129,000	133,000	1,450,000
Undistributed e/	--	42,900 r/	6,810	7,010	76,400
Total	1,630,000	1,430,000 r/	136,000	140,000	1,530,000
Exports (lead content):					
Ore and concentrates	72,400	68,300	14,700	NA	88,700 2/
Bullion	51,600	45,000	4,280	NA	49,900 2/
Materials excluding scrap	39,600	36,200	3,290	NA	32,200 2/
Ash and residues	9,030	8,270	7	NA	1,280 2/
TEL/TML preparations, based on lead compounds	3,180	2,910	127	NA	2,000 2/
Exports (gross weight): Scrap	99,200	90,600	12,900	NA	98,100 2/
Platt's Metals Week North American producer price (cents per pound)	45.27	45.41	43.70	43.64	43.73

e/ Estimated. r/ Revised. NA Not available. XX Not applicable.

1/ Data are rounded to three significant digits, except prices; may not add to totals shown.

2/ Includes data for January - October only; November data were not available at time of publication.

3/ Stocks at end of year.

TABLE 2
MONTHLY AVERAGE LEAD PRICES

	North American producer price cents/lb	LME		Sterling exchange rate dollars/£
		\$/metric ton	£/metric ton	
1998:				
November	44.26	493.87	297.32	1.661080
January - November	45.41	530.71	320.60	1.655839
Year	45.27	528.22	318.86	1.657086
1999:				
August	43.72	502.66	312.97	1.606100
September	43.73	506.91	312.00	1.624686
October	43.70	496.75	299.76	1.657170
November	43.64	477.94	294.94	1.620480
January - November	43.73	504.39	311.74	1.618319

Source: Platt's Metals Week.

TABLE 3
CONSUMPTION OF PURCHASED LEAD-BASE SCRAP IN NOVEMBER 1999 1/

(Metric tons, gross weight)

Item	Stocks October 31, 1999	Net receipts	Consumption	Stocks November 30, 1999
Battery-lead	21,000	101,000	102,000	20,700
Soft lead	W	W	W	W
Drosses and residues	3,110	5,170	5,080	3,200
Other 2/	1,880	1,920	2,210	1,590
Total	26,000	108,000	109,000	25,400
Percent change from preceding month	XX	-0.7	+0.2	-2.2

W Withheld to avoid disclosing company proprietary data; included with "Other." XX Not applicable.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Includes solder, common babbitt, antimonial lead, cable covering, type metals, and other lead-base scrap not elsewhere classified.

TABLE 4
LEAD, TIN, AND ANTIMONY RECOVERED FROM LEAD-BASE
SCRAP IN NOVEMBER 1999 1/

(Metric tons)

Product recovered	Secondary metal content		
	Lead	Tin	Antimony
Soft and calcium lead	50,300	--	--
Remelt lead	W	W	W
Antimonial lead	38,400	W	W
Other 2/	W	W	--
Total lead-base	89,300	103	422

W Withheld to avoid disclosing company proprietary data; included in "Total."

1/ Data are rounded to three significant digits.

2/ Includes cable lead, lead-base babbitt, solder, type metals, and other products.

TABLE 5
CONSUMPTION OF LEAD IN THE UNITED STATES 1/

(Metric tons, lead content)

Uses	1998		1999		
	Year total	January - November	October	November	January - November
Metal products:					
Ammunition, shot and bullets	52,800	35,000 r/	2,860	2,920	38,100
Brass and bronze, billet and ingots	3,460	4,980	335	305	3,340
Cable covering, power and communication and cabling lead, building construction	5,980	4,940	204	191	2,390
Casting metals	32,600	4,930 r/	363	377	4,280
Pipes, traps, and other extruded products	W	W	W	W	W
Sheet lead	18,700	15,800 r/	1,310	1,370	14,800
Solder	10,900	6,100	779	814	8,740
Storage batteries, including oxides	1,430,000	1,240,000 r/	118,000	122,000	1,320,000
Terne metal, type metal, and other metal products 2/	10,400	8,130 r/	212	291	3,070
Total metal products	1,560,000	1,320,000 r/	124,000	128,000	1,390,000
Other oxides	(3/)	(3/)	(3/)	(3/)	(3/)
Miscellaneous uses	69,000	63,800 r/	4,940	5,040	58,800
Total reported	1,630,000	1,390,000 r/	129,000	133,000	1,450,000
Undistributed consumption e/	--	42,900 r/	6,810	7,010	76,400
Grand total	1,630,000	1,430,000 r/	136,000	140,000	1,530,000

e/ Estimated. r/ Revised. W Withheld to avoid disclosing company proprietary data; included with "Sheet lead."

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Includes lead consumed in foil, collapsible tubes, annealing, plating, galvanizing, and fishing weights.

3/ Withheld to avoid disclosing company proprietary data; included with "Miscellaneous uses."

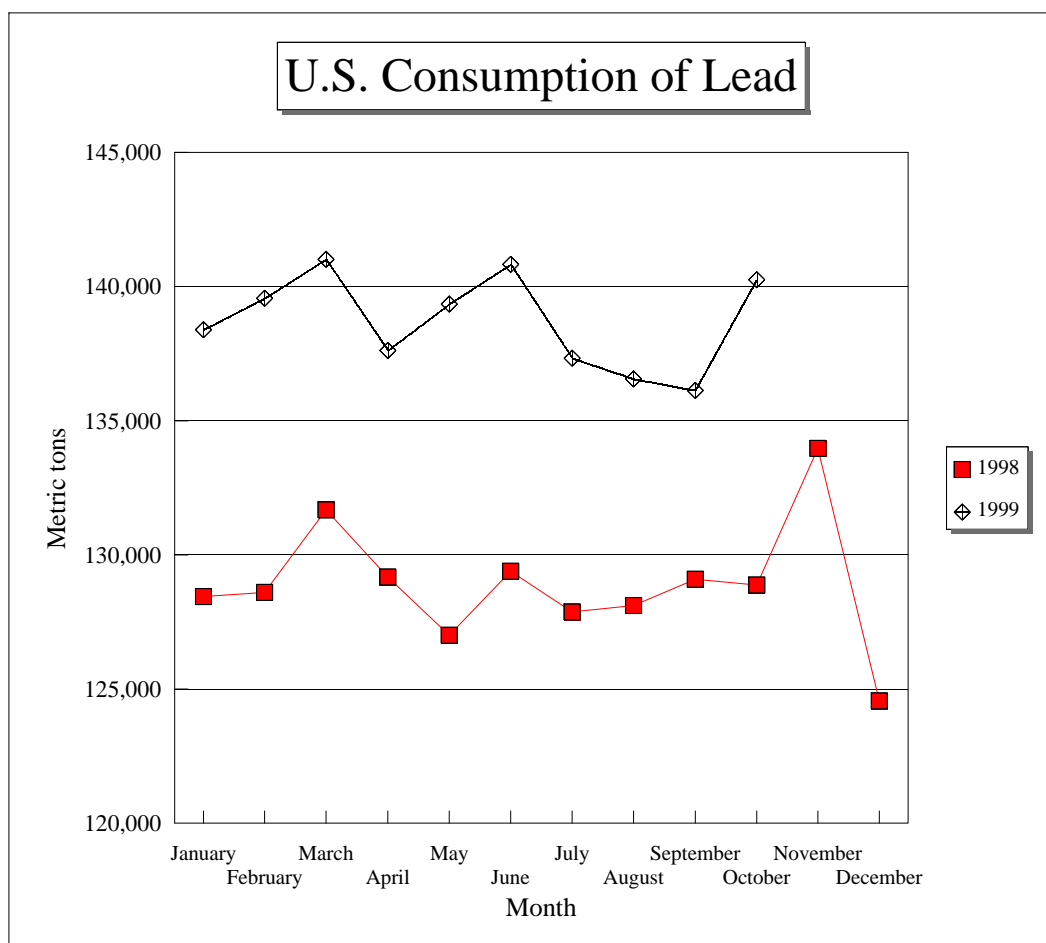


TABLE 6
CONSUMER AND SECONDARY SMELTER STOCKS, RECEIPTS, AND
CONSUMPTION OF LEAD IN NOVEMBER 1999 1/

(Metric tons, lead content)

Type of material	Stocks October 31, 1999	Net receipts	Consumption	Stocks November 30, 1999
Soft lead	26,500	77,100	76,100	27,500
Antimonial lead	24,100	31,000	31,600	23,500
Lead alloys	W	25,000	25,300	W
Copper-base scrap	W	221	224	W
Total	66,400	133,000	133,000	66,500

r/ Revised. W Withheld to avoid disclosing company proprietary data; included in "Total."

1/ Data are rounded to three significant digits; may not add to totals shown.

TABLE 7
U.S. EXPORTS OF LEAD, BY CLASS 1/

(Metric tons)

	1998		1999		
	Year total	October	September	October	January - October
Lead content:					
Ore and concentrates	72,400	4,720	26,800	14,700	88,700
Bullion	51,600	4,810	4,170	4,280	49,900
Materials excluding scrap	39,600	3,720	2,760	3,290	32,200
Ash and residues	9,030	663	19	7	1,280
TEL/TML preparations, based on lead compounds	3,180	214	30	127	2,000
Total	176,000	14,100	33,800	22,400	174,000
Gross weight: Scrap	99,200	10,500	13,100	12,900	98,100

1/ Data are rounded to three significant digits; may not add to totals shown.

Source: Bureau of the Census.

TABLE 8
U.S. IMPORTS OF LEAD BY TYPE OF MATERIALS AND BY COUNTRY OF ORIGIN 1/

(Metric tons, lead content)

Country of origin	General imports					Imports for consumption				
	1998		1999			1998		1999		
	Year total	January - October	September	October	January - October	Year total	January - October	September	October	January - October
Ore, matte, etc.:										
Canada	32,000	32,000	--	--	1,220	6,540	6,540	--	--	(2/)
Mexico	--	--	217	108	1,900	--	--	--	--	1,580
Peru	35,800	23,400	1,660	1,040	6,840	18,500	7,000	--	--	193
Other	21,000	13,500 r/	--	--	19,400	7,670	7,650	--	--	7,660
Total	88,800	68,900	1,870	1,150	29,300	32,700	21,200	--	--	9,430
Base bullion:										
Dominican Republic	464	428	--	--	2	464	428	--	--	2
Pigs and bars:										
Australia	--	--	--	4,390	17,600	--	--	--	4,390	17,600
Canada	181,000	149,000	17,800	16,800	165,000	181,000	149,000	17,800	16,800	165,000
China	8,010	802	7,140	14,900	30,300	8,010	802	7,140	14,900	30,400
Germany	135	87	66	274	776	135	87	66	274	776
Mexico	63,600	56,300	959	2,130	25,100	63,600	56,300	959	2,130	25,100
Peru	11,400	5,900	--	--	2,650	11,400	5,900	--	--	2,650
Other	2,160	1,880 r/	186	2,090	5,760	2,160	1,880 r/	186	2,090	5,760
Total	267,000	214,000	26,200	40,600	247,000	267,000	214,000	26,200	40,600	247,000
Reclaimed scrap, including ash and residues	(2/)	(2/)	--	--	--	(2/)	(2/)	--	--	--
Grand total	356,000	284,000	28,100	41,700	276,000	300,000	236,000	26,200	40,600	257,000

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Less than 1/2 unit.

Source: Bureau of the Census.